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ROSA SHERARDII DAVIES, AN OVERLOOKED SPECIES IN VERMONT AND NEW TO NORTH AMERICA

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ABSTRACT

Documentation is provided for the historical and current distribution of *Rosa sherardii* Davies, a European species of sect. *Caninae* (dog-roses) that has only recently been reported for North America. Its known distribution is confined to east-central and northeastern Vermont and it is conjectured that it was introduced to the area by early settlers from Scotland. Its identification is discussed and illustrations are provided.

KEY WORDS: *Rosa sherardii*, Vermont, adventive

Haines (2011) recently reported Sherard's downy rose (*Rosa sherardii* Davies) from North America, stating that it occurred in Vermont. The report was based on specimens collected or annotated by the current author and joint field visits. This was the first report of this European dog rose species for North America and the purpose of the current article is to present information on the species and its presence on this continent. The species will be treated fully by Dr. Walter Lewis in the Flora of North America.

During fieldwork and review of herbarium specimens for the proposed New Flora of Vermont project, a distinctive rose was encountered that was not readily identified using standard keys and manuals for northeastern North America. Study of European literature (Kláštenský 1968; Graham & Primavesi 1993) indicated that this entity was *Rosa sherardii*, and it is now known from a number of sites in four counties in Vermont (Fig. 1). It is not known to occur elsewhere in elsewhere in North America (Walter Lewis, pers. comm.).

Specimens examined. **VERMONT. Orleans Co.**: Troy: Near Great Falls of the Missisquoi River, 7 Aug 1983, *Zika 7525a* (VT). Irasburg: roadside pullout, Vt. Rte. 14 S of the village of Irasburg, 2 Aug 2007, *Gilman 07110* (VT). **Caledonia Co.**: Peacham: along hedgerow and roadside, old hill farm country, East Hill Road, 21 Aug 2005, *Gilman 05150* (VT); Hardwick: field edge, bank of Lamoille River, Rte. 15 ca. 1.5 E of the village of Hardwick, 21 July 2009, *Gilman 07091* (VT). Groton: under powerlines, Pine Hill Wildlife Management Area, near Topsham Road,13 June 2010, *Gilman 10029* (VT). **Washington Co.**: Cabot: high land overlooking Joe's Pond, Joe's Pond Road, 13 Sep 2009, *Gilman s.n.* (VT). Calais: 15 Sep 1969, *D. Franklin s.n.* (LSC). Calais: 13 Sep 1969, *Seymour 27,205 & Dudey* (VT). Marshfield: near junction of Vt. Rte. 232 and Peacham Pond Road, 9 Aug 1999, *Gilman 99138* (VT, NEBC); same location, mature fruit, 30 Aug 2003, *Gilman 99138* (VT). Plainfield: roadside, Middle Road just N of intersection with Gonyeau Road, 27 Aug 2010, *Gilman 10124* (VT). **Windsor Co**: Bridgewater: 16 July 2001, *Atwood 6315* (VT). West Windsor: old pasture/hedgerow, near Spear Cemetery Road, not near dwellings, 8 Aug 2005, *Gilman 05098* (VT). Woodstock: Prosper, 28 Aug. 1920, *C.McK. Mack* 16 June 1921 and *E.M. Kittredge 998* and (Herb. Billings-Kittredge).

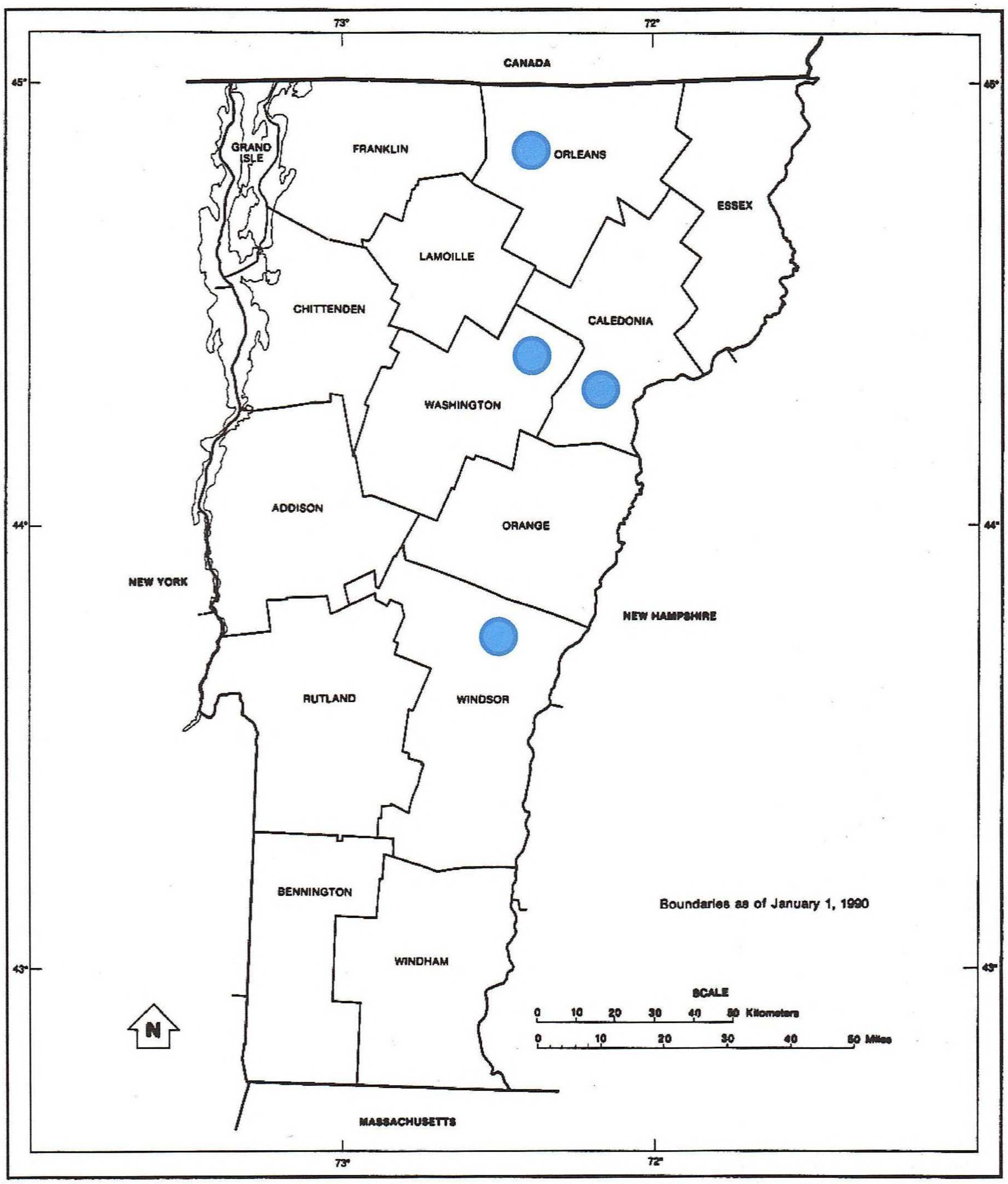

Figure 1. Distribution of *Rosa sherardii* in Vermont; placement of dots within counties shows centers of observed abundance and collections.

Rosa sherardii Davies (1813) is a European species of sect. *Caninae* DC *ex* Ser., first described from Anglesy, Wales, UK. Smith (1800) had mentioned it as a variety of *R. villosa* L., the "apple rose," and in his diagnosis, Davies segregated it from *R. villosa* as follows: "The spines of the branches are larger and more bent; the flowers more numerous, and frequently in the form of an umbel; the fruit smaller, more globular, glossy, and without bristles." It is widespread in northern Europe where it is known from the British Isles east through Scandinavia, Germany, and Poland to

Bulgaria (Kláštenský 1968), while *Rosa villosa*, also long known as *R. pomifera* Herrm., has a more southern distribution in Europe and is further distinguished by having, on average, larger leaves and more pubescence (Kláštenský 1968). Early nomenclature in this group of roses is confused, but Smith (1824, pp. 379–380) specifically stated that his (1800) concept of *R. villosa* was "the common Apple Rose, single or double, of our gardens … [which] is not found wild in England." Therefore, Davies's diagnosis can be taken at face value, not in relation to some other English downy rose. In cladograms based on molecular (AFLP) analyses (Koopman et al. 2008, Figs. 1, 2), *R. sherardii* does not cluster closely with *R. villosa*.

Rosa sherardii is unlike any other rose occurring in New England. It forms an arching-erect, tall (ca. 1.5–2 m), loosely patch-forming shrubs with large, bluish-green, moderately but not densely pubescent leaves and single, medium-pink flowers that are ca. 5 cm in diameter (Fig. 2). The best characters for recognition are the presence of reddish-brown, sessile glands with a resinous scent on the abaxial leaf surfaces and large, bright scarlet, plumply ellipsoid to globose hips that are glabrous to only sparsely stipitate-glandular. In anthesis, the style-orifice at the summit of the hypanthium is wide, about 1/3 the diameter of the summit, and the pubescent stigmas collectively form a low dome. A noticeable feature of a vigorous plant in flower or fruit is that the inflorescences are often subtended by sylleptic growth. Although inflorescences in *Rosa* are usually terminal on branches of the new year (Kalkman 2004), in syllepsis a lateral bud below the inflorescence grows into a leafy shoot that surpasses the inflorescence. *Rosa sherardii* is especially conspicuous in autumn when fruit is ripe (Fig. 3) and its leaves have fallen — no other rose in our region has such large, conspicuous fruits except *Rosa rugosa* Thunberg.

Figure 2. *Rosa sherardii* in bloom; note bluish-green leaves.

Figure 3. Hips of *Rosa sherardii*.

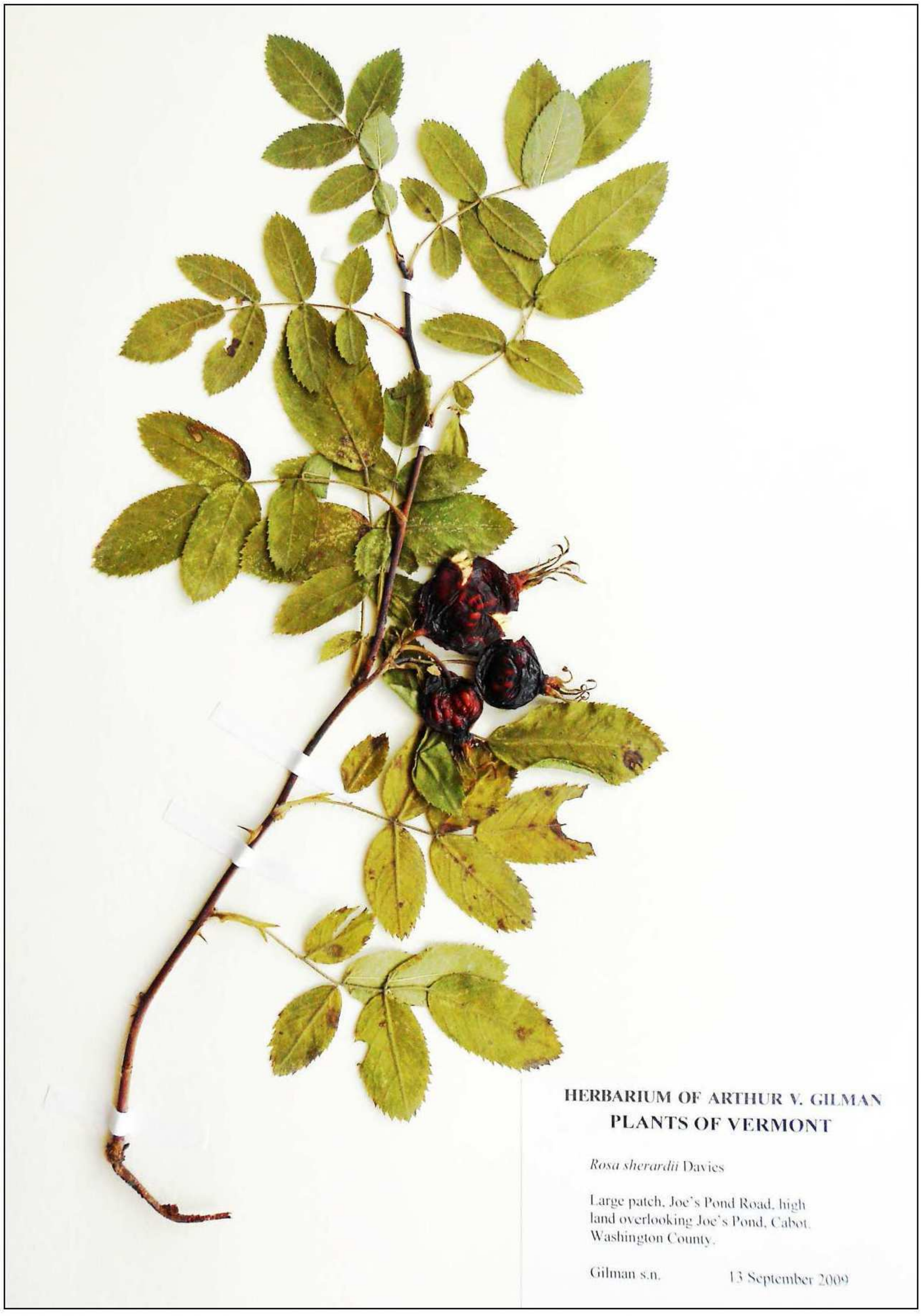

Figure 4. *Rosa sherardii*. Note that the hips, plumply ovate in life, dry to a nearly globose shape and often split when pressed; also note the sylleptic branch that exceeds the infructescence, a common circumstance in this species.

In comparison with locally cultivated *Rosa villosa*, *R. sherardii* plants seen in Vermont have leaves that are slightly smaller and that are much less pubescent on the abaxial leaf surfaces and have hips that are less glandular-hispid and that are typically more orange-red (scarlet) than red. The hips are, however, as large as those of cultivated *R. villosa*, contra Davies's original description that the hips are smaller. According to Graham and Primavesi (1993), "there appears to be more regional variation in *R. sherardii* than in most British wild roses," which may account for this discrepancy.

Few published illustrations of *Rosa sherardii* are available and only the one in Graham and Primavesi (1993, p. 121) fully shows diagnostic characters. Images published on the Web should be considered unreliable in identification.

Sherard's downy rose forms small, loose thickets and occurs primarily along roadsides, along old stone walls, in hedgerows, and in abandoned pastures in northeastern Vermont (Fig. 1). The general landscape where it occurs can be described as the "old agricultural" landscape of hilly, rural Vermont — where local dirt roads, stone walls, small fields, and widely-spaced houses and homesteads, along with intervening forests and woodlots, reflect two hundred years of agricultural use and rural life. The distribution of this species on the landscape indicates that is reproducing by seed and, while confined to settled areas, most plants are not near old house foundations or actual homesteads. This pattern of distribution indicates that it has been present as an escape from cultivation for some time in northeastern Vermont (Orleans, Caledonia, and Washington counties). In Windsor County, its presence was noted (erroneously as *R. tomentosa* Sm.) by Kittredge (1931), who stated on her specimen (*Kittredge 998 & Mack*), "This rose is found on many of the way hillsides and pastures in Woodstock, Pomfret, and Barnard." That this earliest collection (ca. 1920-1921) should be from Woodstock is doubtless due to botanical effort rather than absence of the species elsewhere, as Kittredge was specifically hired to document the flora of the town (Kittredge 1928).

The best explanation for the presence of this rose in a limited region of northern New England is that was intentionally brought by people for ornament, herbal use, or sentiment. Rehder (1940) indicated that *Rosa sherardii* was cultivated in North America since 1933 (probably at the Arnold Arboretum near Boston) but no current US sources for it are known to me, so it seems unlikely to have been available in trade. It seems more likely that it was brought to the area for herbal use or for sentimental reason but, even so, its restriction to a small area that was settled relatively late (ca. 1770's–1850's) seems unusual. Most of Vermont was settled from southern New England, where the species is not recorded and if it had originated from there, it would now likely be more widespread throughout Vermont.

A small section of northeastern Vermont, however, was settled directly from Scotland in 1774–1775 (Crockett 1938). The Scotch-American Company settled as many as 40 settlers from Renfrewshire in the Caledonia County town of Ryegate by October 1774 and the neighboring town of Barnet had settlers from Perth and Sterling soon after (op. cit.). These areas in Scotland are well within the range of *Rosa sherardii* (Graham & Primavesi 1993) and I conjecture that plants, cuttings, or seeds were brought by these early settlers, or perhaps later by their families, directly from Scotland to Vermont. Such an occurrence is known — the Simpson family East Craftsbury in Orleans County is stated (Carty 1952) to have brought a white rose (of unknown identity) with them from the area of Glasgow, Scotland. The presence of Sherard's downy rose in Windsor County (some 50 miles distant) is not as easily accounted for but the general landscape and rural agricultural patterns are similar to those of the more northern counties, and the species may have passed from hand to hand among the settlers and early descendents. It does not seem, however to have entered widely into gardening traditions in the region. Kittredge mentioned that some large-hipped roses, such as the one she reported (1931) as *R. tomentosa*, were removed from the landscape to local gardens, but I have not observed any plantings in local gardens or cemeteries, and the current place of *R. sherardii* in the

landscape seems to be largely non-anthropogenic. There is a minor folk use by herbalists and rural residents who gather ripe hips for tea, often drying them for use through the winter.

Reports of *Rosa tomentosa* Sm. from Vermont (e.g. Dole 1937; USDA, NRCS 2012) are apparently based ultimately on Kittredge's (1931) publication. The specimens (listed above) on which Kittredge's (1931) report was based were originally determined as *R. tomentosa* by P.A. Rydberg at the New York Botanical Garden, but they do not display the dense pubescence and very glandular hips of that species. *Rosa tomentosa* should be excluded from the flora of Vermont.

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